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1 Routine/Function Prologues

1.0.1 interp_agrmet_sw.F90 (Source File: interp_agrmet_sw.F90)

Opens, reads, and interpolates AGRMET shortwave radiation forcing

REVISION HISTORY:

```
26 Jun 2001: Urszula Jambor; Initial code, based on Jesse Meng's
RTNEPH2LATLON.F code.
08 Feb 2002: Urszula Jambor; Modified declarations of arrays
dependant on domain & resolution to allocatable.
Pass in values for latmax.
11 Dec 2002: Urszula Jambor; Added 1/2 & 1 degree resolution GDS arrays
```

INTERFACE:

```
subroutine interp_agrmet_sw( nameSH, outdata, ferror )
```

USES:

```
use lisdrv_module,only : lis,gindex
use agrmetdomain_module, only : rlat,rlon,w11,w12,w21,w22,n11,n12,n21,n22, mi
implicit none
```

ARGUMENTS:

```
character*80 :: nameSH
real :: outdata(lis%d%ngrid)
integer :: ferror
```

CONTENTS:

```
allocate(pdata(mi))
allocate(lo1(lis%d%lnc*lis%d%lnr))
allocate(ldata1(lis%d%lnc*lis%d%lnr))
print*, 'Reading AGRMET file : ',nameSH
open(11, file=nameSH, form="unformatted", iostat=openerrN)
read(11, iostat=readerrN) pdata1
close(11)

if ((openerrN+openerrS+readerrN+readerrS) > 0) then
  ferror = 0
  if ((openerrS+readerrS) > 0) then
    print*, 'AGRMET file problem:', nameSH
  end if
  do i=1,lis%d%ngrid
    outdata(i) = lis%d%udef
  end do
else
  ferror = 1
```

```
    ibi = 1
    count = 0
    li1 = .false.
    do j=1,nagrr
        do i=1,nagrc
            pdata(count+i) = pdata1(i,j)
        enddo
        count = count+nagrc
    enddo
    do i=1,mi
        if(pdata(i).eq.-9999) then
            li1(i) = .false.
        else
            li1(i) = .true.
        endif
    enddo
    kgdso = 0
    kgdso = lis%d%kgds
    call polates0(kgdso,ibi,li1,pdata,ibo,lo1,lidata1,mi,&
                  rlat,rlon,w11,w12,w21,w22,n11,n12,n21,n22,iret)

    if(iret .NE. 0) then
        print*, "IPOLATES ERROR!! PROGRAM STOP!!"
        call exit(iret)
    end if
    count = 0
    do j=1,lis%d%lnr
        do i=1,lis%d%lnc
            if(gindex(i,j).ne. -1) then
                outdata(gindex(i,j)) = ldata1(i+count)
            endif
        enddo
        count = count+lis%d%lnc
    enddo
    endif
    deallocate(pdata)
    deallocate(lo1)
    deallocate(lidata1)
```